

XP 002043473

1/1 - (C) WPI / DERWENT  
AN - 93-335386 ç42!  
AP - SU90 841997 900404  
PR - SU90 841997 900404  
TI - Gas turbine engine disk rolling method - having improved mechanical and service properties and resulting in a lighter engine and thus a lighter aircraft  
IW - GAS TURBINE ENGINE DISC ROLL METHOD IMPROVE MECHANICAL SERVICE PROPERTIES RESULT LIGHT ENGINE LIGHT AIRCRAFT  
IN - BAIMURZIN R G; CHUMALO YU N; KARPACHEVA V E  
PA - (UFAV ) TANTAL CONS BUR UFA AVIATION INST  
PN - SU1770014 A1 921023 DW9342 B21H1/02 003pp  
ORD - 1992-10-23  
IC - B21H1/02  
FS - CPI;GMPI  
DC - M21 P52  
AB - SU1770014 The method, which applies mainly to creep resistant nickel alloys, involves rolling under conditions of superplasticity in a direction from the billet axis to the periphery with driving, cantilever rolls, inclined to the disk, plane, and arranged in pairs diametrically opposite relative to the billet axis.  
- The roll pairs are displaced relative to the horizontal plane, passing through the rolling axis, by an amount equal to half the roll dia. In order to improve the mechanical properties the mutual rates of rotations of the rolls are assigned with a mismatch of 3-6% relative to each other.  
- USE/ADVANTAGE - The method is useful in the pressure working of metals, e.g. in the manufacture of components such as gas turbine engine disks made from creep resistant Ni-based alloys. Bul.39/23.10.92. (Dwg.0/0)